<u>REMARKS</u>

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-6, 8-9, and 11-14 are currently pending. Claims 2 and 4-6 have been amended; and new Claims 13 and 14 have been added by the present Amendment. No new matter has been added.[1]

In the outstanding Office Action, 4-6 and 11-12 were rejected under 35 U.S.C. § 101 as directed to a non-statutory process; Claims 2 and 5 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,058,277 to <u>Streefkerk et al.</u> (hereafter the '277 patent); Claims 1, 3, 6, 8, 9, 11, and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over the '277 patent in view of "Guidelines for Designing User Interface Software" by <u>Smith et al.</u> (hereafter "the <u>Smith</u> document"); and Claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over the '277 patent in view of the <u>Smith</u> document, further in view of U.S. Patent No. 6,606,163 to <u>Suzuki et al.</u> (hereafter "the '163 patent").

In response to the rejection of Claims 4-6 and 11-12 under 35 U.S.C. § 101, Claims 4-6 and 11-12 have been amended to tie the claimed processes to a particular apparatus. Amended Claim 4 recites a method of displaying a queue of print jobs of a printing device including a printing job controller and a display unit. The method includes, *inter alia*, calculating a time required to process a print job *using the printing job controller*. Further, amended Claim 4 recites displaying an image *on the display unit of the printing device*. Therefore, Applicants respectfully submit that the claimed process is tied to a particular apparatus, and is therefore statutory.

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[1] Amended Claims 2 and 4-6 are supported at least by Claims 1 and 3, Fig. 14 and associated text. New Claims 13-14 are supported at least by Fig. 14 and associated text.

Independent Claims 5 and 6 have been amended in a similar fashion, to tie the claimed processes to a particular apparatus. Accordingly, Applicants respectfully request that the rejection of Claims 4-6 and 11-12 under 35 U.S.C. § 101 be withdrawn.

In response to the rejection of Claims 2 and 5 under 35 U.S.C. § 102(e) over the '277 patent, Applicants respectfully submit that amended Claims 2 and 5 patentably define over the '277 patent.

Amended Claim 2 recites a printing job controlling device configured to display a queue of printing jobs to be printed on printing machines, including a calculating unit configured to calculate a time required to process each of the printing jobs. Further, the claimed printing job controlling device includes a displaying unit configured to display a list of identifiers of the printing machines in a column in a window and *to simultaneously display for each of the identifiers an image of a current printing job* having a size proportional to the time calculated by the calculating unit continuously on a predetermined displaying area at a fixed location adjacent to an identifier of a corresponding printing machine at one end of the displaying area. Claim 2 has been amended to recite that the image of a current printing job is displayed *for each of the identifiers*, and is supported at least by Applicants Figure 14 and associated text.

The outstanding Office Action asserts that the '277 patent anticipates all features recited in Claim 2. Specifically, the outstanding Office Action asserts that element 407 in Figure 4 of the '277 patent is the claimed list of identifiers of printing machines. Further, the outstanding Office Action asserts that the pie-shaped diagram shown in Figure 4 (bottom right) is the image of a current printing job. However, Figure 4 of the '277 patent illustrates three different printers (Oce 3125C, HP Deskjet 500C, and Repro), but only one alleged image of a current printing job. On the other hand, Claim 2 has been amended to recite that the displaying unit is configured to simultaneously display, *for each of the identifiers*, an

image of a current printing job. Thus, the '277 patent fails to disclose <u>a displaying unit</u> <u>configured to display a list of identifiers of the printing machines in a column in a window</u> <u>and to simultaneously display, for each of the identifiers, an image of a current printing job</u> <u>having a size proportional to the time calculated by said calculating unit continuously on a</u> <u>predetermined displaying area at a fixed location adjacent to an identifier of a corresponding</u> <u>printing machine at one end of the displaying area</u>, as recited in amended Claim 2.

Claim 5 has been amended to include analogous features to those recited in amended Claim 2. Accordingly, Applicants respectfully submit that amended Claims 2 and 5 patentably define over the '277 patent, and request that the rejection of Claims 2 and 5 under 35 U.S.C. § 102(e) be withdrawn.

Applicants respectfully traverse the rejection of Claims 1, 3, 4, 6, 8, 9, 11, and 12 under 35 U.S.C. § 103(a).

Claim 1 recites a printing job controlling device configured to display a queue of printing jobs. The printing job controlling device includes a calculating unit configured to calculate a time required to process a printing job. The printing job controlling device also includes a reading unit configured to read out a current status of the printing job. Further, the controlling device includes a displaying unit configured to display an image having a size proportional to the time required calculated by the calculating unit and *filled with a repeating pixel pattern that changes according to the current status* read out by the reading unit.

The outstanding Office Action acknowledges that the '277 patent fails to teach or suggest an image having a size proportional to the time required calculated by the calculating unit and filled with a repeating pixel pattern that changes according to the current status read out by the reading unit.[2] However, the outstanding Office Action asserts that the <u>Smith</u> document cures these acknowledged deficiencies of the '277 patent. Specifically, the

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[2] Outstanding Office Action, page 6, lines 13-15.

outstanding Office Action refers to §2.4.4. of the <u>Smith</u> document to allegedly describe a repeating pixel pattern that changes according to the current status.

Applicants respectfully disagree, and submit that the cited passage of the <u>Smith</u> document, and the <u>Smith</u> document as a whole, fails to teach or suggest an image having a size proportional to the time required calculated by the calculating unit and filled with a repeating pixel pattern that changes according to the current status read out by the reading unit.

The relevant passage from the <u>Smith</u> document is reproduced below, with underlining added:

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# 2.4.4 Graphics - Bar Graphs

Bar graphs show a comparative measure for separate entities or for a variable sampled at discrete intervals.

## 2.4.4/1 Bar Graphs

Consider bar graphs, where numeric quantities are represented by the linear extent of parallel bars, for comparing a single measure across a set of several entities or for a variable sampled at discrete intervals.

**Comment**
Displayed bars are usually shown extending from a common origin. For some applications, however, the bars might extend between separately plotted high- and low-points. Bars might be displayed, for example, to indicate the range of observed measures.

**Comment**
The displayed linear extent of adjacent bars permits direct visual comparison of quantity, and thus effective assimilation of comparative data by users.

**Comment**
The value of the bar graph format, as with other graphic displays, is to speed information assimilation by a user. In some applications, however, a user can scan displays in a leisurely way, as when reviewing printed output. In such cases, the data shown in a bar graph could often be presented more economically (i.e., more compactly) by a textual description or in a small table.

**Comment**
For experienced users, <u>the overall pattern of a bar graph may serve a diagnostic function beyond the comparison of individual bars. For example, if multiple bars show data from different components of a complex system, then users may learn characteristic "profiles" of the bars which indicate system status</u>.

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The outstanding Office Action relies on the section underlined above, stating that "the overall pattern of a bar graph may serve a diagnostic function beyond the comparison of individual bars. For example, if multiple bars show data from different components of a complex system, then users may learn characteristic 'profiles' of the bars which indicate system status."[3]

It appears that the outstanding Office Action is misinterpreting "overall pattern of a bar graph" as *a repeating pixel pattern that changes according to the current status* filling the bar graph. The cited "pattern of a bar graph" is **not a fill pattern**, but rather is the

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[3] <u>Smith</u> document § 2.4.4/1.

combination of adjacent bar graphs next to each other forming a profile. Indeed, the <u>Smith</u> document states that "characteristic 'profiles' of the bars... indicate system status."[4] Further, Applicants respectfully submit that the common definition of "profile" includes "a representation of something in outline," or "an outline seen or represented in sharp release," such as a contour.[5] Thus, Applicants respectfully submit that the <u>Smith</u> document describes a **pattern formed from a combination of adjacent bar graphs forming an outline** or a profile which conveys some meaning. However, the <u>Smith</u> document is silent regarding a pattern **filling a bar graph**, much less *a repeating pixel pattern that changes according to the current status*. Therefore, the <u>Smith</u> document fails to teach or suggest *an image having a size proportional to the time required... and filled with a repeating pixel pattern that changes according to the current status read out by the reading unit*, as recited in Claim 1. Thus, Applicant's respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of Claim 1 should be withdrawn.

Independent Claims 3 and 6 recite a similar feature of a repeating pixel pattern that changes according to the current status. In addition, Claim 3 has been amended to recite a displaying unit configured to <u>simultaneously</u> display rectangular images <u>in a window</u>, each image having a size proportional to the time required calculated by said calculating unit continuously on a predetermined displaying area, adjacent to each other with gaps between adjacent images, forming a combined substantially rectangular image having a size proportional to a sum of calculated times required to process each of the printing jobs. Claim 6 has been amended in an analogous manner.

However, Applicants respectfully submit that the combined teachings of the '277 patent and the <u>Smith</u> document fail to teach or suggest <u>a displaying unit configured to</u>

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[4] <u>Id.</u>
[5] Webster dictionary definition of the noun profile.

simultaneously display rectangular images in a window, each image having a size proportional to the time required calculated by said calculating unit continuously on a predetermined displaying area, adjacent to each other with gaps between adjacent images, forming a combined substantially rectangular image having a size proportional to a sum of calculated times required to process each of the printing jobs. Because the Smith document fails to cure the acknowledged deficiencies of the '277 patent, Applicants respectfully submit that Claims 3 and 6 (and all associated dependent claims) patentably define over any proper combination of the '277 patent and the Smith document.

Further, Applicants respectfully submit (and indeed the outstanding Office Action does not assert otherwise) that the '163 patent fails to cure the deficiencies of the combination of the '277 patent and the Smith document. Therefore, Applicants respectfully submit that Claim 4 patentably defines over any proper combination of the '277 patent, the Smith document, and the '163 patent.
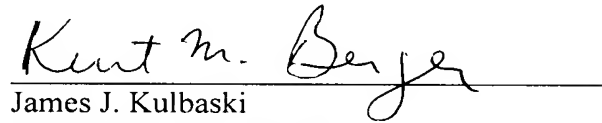
Accordingly, Applicants respectfully request that the rejections of Claims 1, 3, 4, 6, 8, 9, 11, and 12 under 35 U.S.C. § 103(a) be withdrawn.

New Claims 13 and 14 have been added to vary the scope of patent protection and to further define over the cited references. Claim 13 recites that the displaying unit recited in Claim 2 is further configured to display an icon representing a current status of a respective printing machine adjacent to an identifier for the respective printing machine. New Claim 14 recites similar features. Applicants respectfully submit that no proper combination of the cited references teaches or suggests these features. Accordingly, Applicants respectfully submit that Claims 13 and 14 patentably define over any proper combination of the cited references.

Consequently, in view of the present amendment and the foregoing discussion, the

present application is believed to be in condition for allowance. An early and favorable

action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Customer Number

**22850**

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 06/04)

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James J. Kulbaski
Registration No. 34,648
Attorney of Record

Kurt M. Berger, Ph.D.
Registration No. 51,461